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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,989	06/26/2003	Michael A. Gavlak	65899-0685	5441
22851	7590	04/19/2007	EXAMINER	
DELPHI TECHNOLOGIES, INC. M/C 480-410-202 PO BOX 5052 TROY, MI 48007			ALI, MOHAMMAD	
			ART UNIT	PAPER NUMBER
			2166	
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	04/19/2007	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/606,989	GAVLAK ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Mohammad Ali	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 19 January 2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,4-7,9-16,22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) 2,3,8 and 17-21 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,4-7,9-16,22 and 23 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 26 June 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Response to Arguments***

1. After further search and a thorough examination of the present application claims 1 and 4-7, 9-16, and 22-23 remains rejected.

Applicants' arguments with respect to claims 1 and 4-7, 9-16, and 22-23 have been considered, but they are not deemed to be persuasive.

**First**, Applicant's argue that Beppu does not provide facility for characterizing or classifying any record already in the database on the basis of whether or not it will be affected by a change to another item having a record already in the system'

In response to applicant's arguments, the Examiner respectfully submits that in particular, Beppu teaches this limitation as in operation, a design parts list is first created by the design parts list entry processing unit in the design section and then stored in the design/production parts list storage unit. In the production section, the design parts list is first copied unchanged onto a production arrangement parts list by the production arrangement parts list entry processing unit and then the resulting production arrangement parts list is stored in the storage unit. When design changes are made, only changed portions are copied by the production arrangement parts list entry processing unit into the storage unit on the basis of the previous production parts list, see col. 4, lines 5-15, Beppu.

**Second**, Applicant's argue that Beppu does not show any list of items requiring further analysis before being identified as affected or non-affected.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

**Third**, In response to applicant's argument on page 9, a *prima facie* case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art. Once such a case is established, it is incumbent upon appellant to go forward with objective evidence of unobviousness. *In re Fielder*, 471 F.2d 640, 176 USPQ 300 (CCPA 1973).

Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification.

#### Interpretation of Claims-Broadest Reasonable Interpretation

During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.' Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. *In re Prater*, 162 USPQ 541,550-51 (CCPA 1969).

#### Reference is made to MPEP 2144.01 - Implicit Disclosure

"[I]n considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom." *In re Preda*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968)

Subsequent to an analysis of the claims it was revealed that a number of limitations recited in the claims belong in the prior art and thus encompassed and/or implicitly disclosed in the reference (s) applied and cited. It is logical for the examiner to focus on the limitations that are "crux of the invention" and not involve a lot of energy and time for the things that are not central to the invention, but peripheral. The examiner is aware of the duties to address each and every element of claims, however, it is also important that a person prosecuting a patent application before the Office or an stakeholders of patent granting process make effort to understand the level of one of ordinary skill in the (data processing) art or the level one of skilled in the (data processing) art, as encompassed by the applied and cited references. The administrative convenience derived from such a cooperation between the attorneys and examiners benefits the Office as well the patentee.

In view of the above, the examiner contends that all limitations as recited in the claims have been addressed in this Action.

For the above reasons, Examiner believed that rejection of the last Office action was proper.

In response to applicant's argument, to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

"Test of obviousness is not whether features of secondary reference may be bodily

incorporated into primary reference's structure, nor whether claimed invention is expressly suggested in any one or all of references; rather, test is what combined teachings of references would have suggested to those of ordinary skill in art."

In re Keller, Terry, and Davies, 208 USPQ 871 (CCPA 1981).

"Reason, suggestion, or motivation to combine two or more prior art references in single invention may come from references themselves, from knowledge of those skilled in art that certain references or disclosures in references are known to be of interest in particular field, or from nature of problem to be solved;" Pro-Mold and Tool Co. v. Great Lakes Plastics Inc. U.S. Court of Appeals Federal Circuit 37 USPQ2d 1626 Decided February 7, 1996 Nos. 95-1171, - 1181

"[q]uestion is whether there is something in prior art as whole to suggest desirability, and thus obviousness, of making combination." Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Company et al. U.S. Court of Appeals Federal Circuit 221 USPQ 481 Decided Mar. 21, 1984 No 83-1178.

Hence, Applicants' arguments do not distinguish over the claimed invention over the prior art of record.

In light of the foregoing arguments, the 103 rejections are hereby sustained.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 and 4-7, 9-16, and 22-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims recites the limitations "could be affected, whether,,,,"

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1 and 4-7, 9-16, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 5,777,877 (henceforth referred to as Beppu et al.) in view of Maki et al. ('Maki' henceforth referred as Make et al.) USP, 5,307,261.

Claim 1 is anticipated by Beppu et al. as follows: **A system for managing a change to an item associated with a complex system of inter-related items**

**comprising: a computer-based database comprising a plurality of records, wherein each record corresponds to and includes information concerning an item associated with the complex system, said information including an identification of records related items that could be affected by a change to the changed item** (Abstract, C13:L46-59, C2:L52-C3:L3), **wherein the computer-based is configured, upon input of an item to be changed, to identify from the information in the record, .... (see col. 9, lines 51-58, Fig. 5, ) (figure 13 shows the UI element used to further classify objects), ; and a computer-user interface displaying a list of the related items that could be affected by the change to the item and further displaying user-updateable list of the affected items and a user-updateable list of non-affected items** (C7:L3-11, figure 6 shows an edit menu which indicates that users can modify the parts in the hierarchy) and **a user-updateable list of the related items that require additional analysis before said items can be assigned to either said affected items list or said non-affected items list** (figure 13 shows the UI element used to further classify objects).

Beppu et al. does not explicitly indicate claims user-updateable list of affected items and a user-updateable list of non-affected items.

Maki et al. teaches user-updateable list of affected items and a user-updateable list of non-affected items as, each end item defined within Master Item data 56 has assemblies and components which are recorded in the Bill of Material (BOM) component data at reference numeral 58, which may be utilized to define the "basic" configuration of individual assemblies, as well as specially engineered assemblies for

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customers. Customer contract information is set forth within database 60 and 62 and ordered configurations are recorded in End Item Configuration header 64. An Engineering Change/Manufacturing Engineering Change “updateable” headers are created when a customer contracted configuration has specially engineered assemblies and parts and this information is set forth at reference numeral 66. Engineering change affected items are listed at reference numeral 68 and location effected items are listed at reference numeral 70, see col. 5, lines 23-38, Fig. 2, Maki et al.

It would have been obvious to one ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because user-updateable list of affected items and a user-updateable list of non-affected items of Maki et al teaching would have allowed Beppu et al systems to track multiple designed end items configurations and their resultant effect on their basic end items as suggested by Maki et al at col. 1, lines 24-27.

**Claim 4 is anticipated by Beppu et al: as in claim 1, wherein said items include parts used in an assembled end product and documents associated with said assembled end product** (figure 14 shows that the system contains drawing documents associated with each component and part in the system, and the records for the components of the instant part).

**Claim 5 is anticipated by Beppu et al. as in claim 1, wherein said computer-user interface further includes a user-updateable input field for receiving an identifier of said item to be changed** (C11:L13-16, figure 16 element S46);

**Claim 6 is anticipated by Beppu et al. as in claim 5, wherein said list of related items is generated automatically in response to a query to said database based upon said identifier of said changed item in said input field (Abstract, C13:L46-59, C2:L52-C3:L3).**

**Claim 7 is anticipated by Beppu et al. as in claim 5, wherein said computer-user interface further includes one or more visual indicators associated with said items on said related items list that indicate if said related items are assigned to said list of affected items, said list of items that require additional analysis, or said list of non-affected items (figure 6 indicates by the fill and border combinations whether or not the part will need to undergo recombination).**

**Claim 11 is anticipated by Beppu et al. as follows: A method of managing changes to items associated with a complex system of inter-related items comprising: searching a database for items related to a changed item (figure 17 shows the hierachal schema used to store the parts and their relationships); assigning each of said related items to (i) an affected items list, (ii) a non-affected items list, and (iii) an analysis required list, depending upon whether each of the related items (i) is affected by a change to said changed item, (ii) is not affected by a change to said changed item, and (iii) requires additional analysis to determine if the related item is affected or not affected (C8:L64-C9:L16, figure 12); (C7:L3-11, figure 6 shows an edit menu which indicates that users can modify the parts in the hierarchy, figure 13 shows the UI element used to further classify objects).**

**displaying on a computer-user interface displaying a list of the related items that could be affected by the change to the item and further displaying user-updateable list of the affected items and a user-updateable list of non-affected items** (C7:L3-11, figure 6 shows an edit menu which indicates that users can modify the parts in the hierarchy) and a user-updateable list of the related items that require additional analysis before said items can be assigned to either said affected items list or said non-affected items list (figure 13 shows the UI element used to further classify objects).

Beppu et al. does not explicitly indicate claims user-updateable list of affected items and a user-updateable list of non-affected items.

Maki et al. teaches user-updateable list of affected items and a user-updateable list of non-affected items as, each end item defined within Master Item data 56 has assemblies and components which are recorded in the Bill of Material (BOM) component data at reference numeral 58, which may be utilized to define the "basic" configuration of individual assemblies, as well as specially engineered assemblies for customers. Customer contract information is set forth within database 60 and 62 and ordered configurations are recorded in End Item Configuration header 64. An Engineering Change/Manufacturing Engineering Change "updateable" headers are created when a customer contracted configuration has specially engineered assemblies and parts and this information is set forth at reference numeral 66. Engineering change affected items are listed at reference numeral 68 and location effected items are listed at reference numeral 70, see col. 5, lines 23-38, Fig. 2, Maki et al.

It would have been obvious to one ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because user-updateable list of affected items and a user-updateable list of non-affected items of Maki et al teaching would have allowed Beppu et al systems to track multiple designed end items configurations and their resultant effect on their basic end items as suggested by Maki et al at col. 1, lines 24-27.

**Claim 12 is anticipated by Beppu et al. as in claim 11, wherein a human user manually assigns at least some of said related items to said affected items list, said non-affected items list, and said analysis required list (figure 13 shows the UI element used to further classify objects, figure 18 elements S65 & S56); and wherein at least some of said related items are automatically assigned to said affected items list, said non-affected items list, and said analysis required list by pre-established rules applied by computer software (C8:L64-C9:L16, figure 12).**

**Claim 13 is anticipated by Beppu et al. as in claim 11, providing a visual indication associated with each of said related items that indicates if said related item has been assigned to said affected list, said non-affected list, and said analysis required list (figure 6 indicates by the fill and border combinations whether or not the part will need to undergo recombination).**

**Claim 14 is anticipated by Beppu et al. as in claim 11, further including the steps: analyzing items assigned to said analysis required list to determine if said analysis required items would be affected by a change to said changed item (figure 1 elements 4 & 10 {automatic} element 11 {manual}); and assigning said**

**analysis required items to said affected items list and said non-affected items list, depending upon whether or not said analysis required items would be affected by a change to said changed item (figure 5 element S21).**

Claim 15 is anticipated by Beppu et al. as in claim 14, **wherein said step of assigning said analysis required items is performed manually by a human user (C4:L16-21, figure 1 element 11).**

Claim 16 is anticipated by Beppu et al. as in claim 14, **wherein one or more of said searching, said analyzing, and said assigning steps are repeated until no items remain on said analysis required list (see the feedback paths of figure 4).**

Claim 22 is anticipated by Beppu et al. as in claim 5, **wherein said computer-user interface provides,... (figure 6 indicates by the fill and border combinations whether or not the part will need to undergo recombination).**

Claim 23 is anticipated by Beppu et al. as in claim 5, **wherein said steps are performed,... (Abstract, C13:L46-59, C2:L52-C3:L3).**

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Contact Information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad Ali whose telephone number is (571) 272-4105. The examiner can normally be reached on Monday-Thursday (7:30 am-6:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Mohammad Ali  
Primary Examiner  
Art Unit 2166

MA  
April 14, 2007